



State of Utah

Department of Natural Resources

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Division of Oil, Gas & Mining

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March 15, 2005

CERTIFIED RETURN RECEIPT
7099 3400 0016 8896 1508

Mert Hamilton
Rocanville Corporation
P. O. Box 35
Delta, Utah 84624

Subject: Initial Review of Notice of Intention to Commence Large Mining Operations, Rocanville Corporation, Black Rock Mine, M/027/088, Millard County, Utah

Dear Mr. Hamilton:

The Division has completed our review of your draft Notice of Intention to Commence Large Mining Operations for the Black Rock Mine, located in Millard County, Utah, which was received February 3, 2005. The attached comments will need to be addressed before tentative approval may be granted.

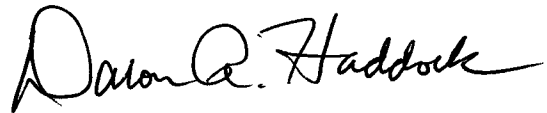
The comments are listed under the applicable Minerals Rule heading. Please format your response in a similar fashion. **Please address only those items requested in the attached technical review.** Please send replacement pages of the original mining notice using redline and strikeout text so we can see what changes have been made. After the notice is determined technically complete and we are prepared to issue final approval, we will ask that you send us two clean copies of the complete and corrected plan. Upon final approval of the permit, we will return one copy stamped "approved" for your records. Please provide a response to this review by April 15, 2005.

The Division will suspend further review of the Black Rock Mine Notice of Intention until your response to this letter is received. If you have any questions in this regard please contact me, Tom Munson, Paul Baker or Doug Jensen of the Minerals Staff. If you wish to arrange a meeting to sit

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down and discuss this review, please contact us at your earliest convenience.
Thank you for your cooperation in completing this permitting action.

Sincerely,

A handwritten signature in black ink that reads "Daron R. Haddock". The signature is fluid and cursive, with the first name "Daron" being more prominent than the last name "Haddock".

Daron R. Haddock
Permit Supervisor
Minerals Regulatory Program

DRH:tm:jb
Attachment: Review
cc: Rex Rowley, BLM, Fillmore FO (UTU-078286) w/attach
Dave Ryzak, Consultant w/attach
O:\M027-Millard\M0270088-BlackRock\draft\review-initial-03152005.doc

REVIEW OF NOTICE OF INTENTION TO COMMENCE LARGE MINING OPERATIONS

Rocanville Corporation Black Rock Mine

**M/027/088
3/15/2005**

R647-4-105 - Maps, Drawings & Photographs

105.1 Topographic base map, boundaries, pre-act disturbance

Map B-2 shows what's described as a "diverted road" required by BLM.

The text notes that this "diverted road" accounts for .1 acre. In order for this 1000' road to cover only .1 acres it can only be ~4.5' wide, is this calculation correct? (DJ)

R647-4-106 - Operation Plan

106.4 Nature of materials mined, waste and estimated tonnages

The estimate of overburden to be produced is noted as 240 to 300 yards.

The estimated thickness of overburden is 0-5 feet. Considering this estimate a total of up to 13,731 cubic yards of material could be produced from the disturbance of 8.5 acres with an overburden depth of 5'. Is the estimate of 240 to 300 yards (8.9 to 11 cubic yards) will be produced during the life of this mine correct? Please review and correct this estimation or provide better estimate of the overburden thickness. (DJ)

106.5 Existing soil types, location, amount

The operator needs to identify additional soils or substitute soils that can be used in reclamation. Very limited soil resources are available for salvage in areas to be disturbed; if the estimates in the plan are correct, only about 3200 cubic yards can be salvaged in addition to the soil that has already been saved. This is an average of about two inches over the 12.9 acres where soil is needed. Since the plan calls for putting one foot of soil in some areas, even less material would be available for other areas. (PBB)

Section 107.5 of the plan also says recoverable quantities of plant growth material will be stockpiled as they are encountered. Are there undisturbed deep alluvial soils where the subsoil can be salvaged to supplement the 3300 cubic yards mentioned above? Baseline information in the plan indicates these soils are 20-60 inches deep (although tests are needed to determine how much of this soil should be used—see below). The plan says recoverable quantities of plant growth material will be stockpiled from overburden, but are there unknown problems with this overburden as discussed below? (PBB)

Before salvaging subsoil and overburden and using them for soil, these materials should be tested for pH, electrical conductivity, texture, and sodium adsorption ratio.

If these materials are suitable, they should be stockpiled and protected the same as topsoil. (PBB)

Based on what overburden and subsoil materials are suitable for being salvaged, please provide a revised estimate of how much material will be available for use as soil. (PBB)

106.6 Plan for protecting & redepositing soils

Section 110.2 indicates plant growth material may be placed on the waste dump, but there is no specific commitment to do so. Experience at the nearby Cricket Mountain Mine indicates limestone fines by themselves—or even with amendments—do not work well as a topsoil substitute. The operator of the Cricket Mountain Mine had far better success where a few inches of topsoil could be spread over limestone fines and left very rough. For this reason, the Division recommends against using waste material as substitute topsoil. It would be much better to use some suitable overburden or subsoil. (PBB)

The plan also mentions the possibility of using partially decomposed cow manure or chemical fertilizer in certain areas. Composted cow manure would be acceptable, but in most cases, the Division recommends against any kind of chemical fertilizer. (This is only a comment; no change is needed to the plan.) (PBB)

The operator requests that the Division suggest a seed mix that could be used for stabilizing the soil stockpile. The recommended seed mix is attached to this review. (PBB)

The reclamation treatments map says areas being reclaimed will be ripped and regraded followed by topsoil placement, seeding, and fertilization. The site should be regraded *before* being ripped, and it may be best to regrade, replace topsoil, then rip. (PBB)

The surface of every area that is going to be seeded needs to be prepared. Under seed bed preparation in the reclamation plan, the plan says seedbeds will be prepared by ripping them with a dozer equipped with ripper teeth in areas where the surface has been compacted. This statement should be applied to all areas of the mine that are to be seeded, not just those that are compacted. The plan should also specify ripping depths and the spacing of ripper shanks. The depth should be at least two feet, and the shanks should be spaced no more than three feet apart. (PBB)

The plan states in Section 106.6 (page 6) that the area from which soil will be salvaged or stockpiled is shown on Map C, but Map C only shows a soil storage area. It does not show the area from which soil will be salvaged. Please provide this information. (DJ & PBB)

Additionally, Section 107.5 says recoverable plant growth material, primarily subsoil with rock, from the overburden will be stockpiled at the places indicated on Map C. This implies the subsoil and topsoil will be mixed. Although this may be acceptable since there might be little difference between subsoil and topsoil, the Division and the operator need to know the results of laboratory tests on the subsoil before the topsoil and subsoil are mixed. (PBB)

106.7 Existing vegetation - species and amount

The plan includes an estimate of vegetation cover (40%), but it does not appear this was based on sampling. Division biologist Paul Baker visited the site on February 22, 2005, and based on several samples, he estimated vegetation cover to be 4.2 percent on the rock outcrops, 30.4 percent on slopes next to the rock outcrops, and 40.0 percent on the lower slopes. Species identification—especially for grasses—was difficult because of the season, but perennials that appeared to be present included:

Rock outcrops	Upper Slopes	Lower Slopes
Cliffrose	Snakeweed	Galleta
Snakeweed	Prickly Phlox	
Bluebunch Wheatgrass	Sand Dropseed?	
Three-Awn?		

The area probably has some native ephemeral species that were not present during this visit. (PBB)

The site also contained annuals which include halogeton, downy brome or cheatgrass, blue mustard, and another species that is probably tumblemustard. (PBB)

The plan needs to contain site-specific information, such as that shown above, about the plant species growing in the mine area. (PBB)

Because there is such a great difference in vegetation cover between the rock outcrops and those areas with some soil, the Division recommends that the plan include cover information for at least the two different types of areas. This implies there would also be two separate revegetation success standards. Alternatively, the operator could estimate the proportions of the area covered by rock outcrops and soils and calculate an overall success standard based on weighted cover values. (PBB)

The plan includes information from the Natural Resources Conservation Service about plant communities in the area, and although this information is useful for showing what species might occur at the site, the plan should clarify that these are communities that have the potential to occur on soil anticipated to be in the mine area. (PBB)

R647-4-107 - Operation Practices

107.1 Public safety & welfare

The plan states that roads will be constructed to reach the upper benches. It is understood that these roads will be consumed during the initial phases of the mine. Will there be roads constructed outside the present disturbance outline to access the upper benches? (DJ)

107.4 Deleterious material safely stored or removed

The plan states "care will be taken to minimize spills on the ground"
The plan should commit to the clean up and dispose of material contaminated by any spills that occur onsite. (DJ)

R647-4-109 - Impact Assessment

109.4 Slope stability, erosion control, air quality, safety

The plan states "water flowing down the north-south drainage will filter through the overburden/waste dump . . . This should keep erosion to an acceptable level. Please state what is an acceptable level of erosion. (DJ)

An application for an air quality permit has been made to Utah Division of Air Quality.

A copy of this application should be submitted with this permit application until the actual permit can be incorporated. (DJ)

R647-4-110 - Reclamation Plan

110.5 Revegetation planting program

Most of the revegetation plan is adequate, but the operator requests the Division's assistance in preparing a seed mix for final reclamation. A recommended seed mix is included with this review. The Division recommends that this seed mix be used in concurrent reclamation then modified as needed depending on how successful it is. (PBB)

R647-4-113 - Surety

One of the stipulations from the BLM was for the placement of berms between the "diverted road" and the power poles.

The surety estimate shows ripping and regrading of the access roads, but there is no amount shown for this activity, please review and correct this problem. Also please include an additional activity for the removal of the berms along this road. (DJ)

The surety shows that growth medium will only have to be hauled to 2.3 acres (benches).

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Spreading of materials with a dozer for distances greater than 200' is impractical. A portion of the growth medium replacement on the floor of the quarry appears to also require some load and haul. Please review these distances and include any growth replacement >200 push in the load and haul category. (DJ)

Cost estimates used to calculate reclamation estimates have been updated to reflect updated Means and Caterpillar Costs to reflect unit cost for the year 2005. For your use a copy of these updated costs are included with this review. (DJ)

Attachment: Seed Mix

Recommended Interim Seed Mix for the Black Rock Mine (M/027/088)

Species	Seeding Rate (pounds pure live seed/acre)
Crested Wheatgrass (Hycrest)	8
Streambank Wheatgrass	5
Indian Ricegrass	5

Recommended Final Reclamation Seed Mix for the Black Rock Mine (M/027/088)

Species	Seeding Rate (pounds pure live seed/acre)
Crested Wheatgrass (Hycrest)	2
Russian Wild Rye	4
Bluebunch Wheatgrass	3
Nevada Bluegrass	0.5
Palmer Penstemon	0.25
Lewis Flax	0.5
Fourwing Saltbush	4